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EXAMINER

KANG, INSUN

ART UNIT PAPER NUMBER

2193

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/065,314	Applicant(s) YANNAKOYORGOS ET AL.	
	Examiner Insun Kang	Art Unit 2193	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed 2/7/2006.
2. As per applicant's request, claims 1 and 9-12 have been amended.

Claims 1-12 are pending in the application.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Per claims 1-12, the added limitation "without requiring software code check-out in any of the at least two software code repositories" is unclear in its scope and meaning. Without such code check-out, how can a developer work on that code? The applicant in his Remarks states that "Paragraph...once the changes are made, the module or section is checked-in and another developer can then check-out the module to make further changes. In such a check-out technique, two developers are unable to make concurrent changes on the same module because only one developer can have the module checked-out at a time (pages 8-9). In order to further examine the application, the limitation is interpreted as "without requiring software code check-in and check-out one at a time in any of the at least two software code repositories." Correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Cederqvist et al. ("CVS—Concurrent Versions System Version Management with CVS," 1993) hereafter "CVS."

Per claim 1:

CVS discloses :

- identifying projects for a software development cycle (i.e. page 19, Defining the module section);
- initiating concurrent software code development as functional development packages in at least two software code repositories without requiring software code check-out in any of the at least two software code repositories (i.e. page 20 multiple developers section)
- approving the functional development packages within each of the software code repositories (i.e. page 33 Merging section);

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- identifying omissions or conflicts between the approved functional development packages in the at least two software code repositories (i.e. page 33-35 Merging section);
- resolving the omissions or conflicts between the functional development packages in the at least two software code repositories (i.e. page 33-35 Merging section);
- and releasing the functional development packages (i.e. page 60, commit section; page 7, versions, revisions, and releases section).

Per claim 2:

The rejection of claim 1 is incorporated, further CVS discloses approving projects for the software development cycle (i.e. page 33-35 Merging section).

Per claim 3:

The rejection of claim 1 is incorporated, further CVS discloses submitting the functional development packages for system testing (i.e. page 33-35 Merging section).

Per claim 4:

The rejection of claim 1 is incorporated, further CVS discloses regression testing the functional development packages (i.e. page 33-35 Merging section).

Per claim 5:

The rejection of claim 1 is incorporated, further CVS discloses submitting the functional development package for manager approval within the respective software code repository (i.e. page 33-35 Merging section).

Per claim 6:

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The rejection of claim 1 is incorporated, further CVS discloses automatically submitting the functional development packages for code owner approval (i.e. page 60, commit section; page 7, versions, revisions, and releases section).

Per claim 7:

The rejection of claim 1 is incorporated, further CVS discloses applying the functional development packages to a development map within each of the software code repositories (i.e. page 60, commit section; page 7, versions, revisions, and releases section).

Per claim 8:

The rejection of claim 1 is incorporated, further CVS discloses testing the released functional development packages (i.e. page 33-35 Merging section).

Per claim 9, it is the computer executable software code version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

Per claim 10, it is the computer-readable medium version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

Per claim 11, it is the programmed computer version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steinman et al ("Object Technology's ENVY/Developer") hereafter "Steinman" in view of Cederqvist et al. ("CVS—Concurrent Versions System Version Management with CVS," 1993) hereafter "CVS."

Per claim 1:

Steinman discloses the management of concurrent software code development on pg. 4 under Envy Concept. Steinman further discloses that the new release of Envy/Developer provides multi-repository support in the Postscript of the disclosure on page 13 ("A new version is available soon, R3.0...multi-repository support...multi-team programming," page 13). Although Steinman does not explicitly disclose the actual multi repository environment in the disclosure, CVS teaches such distributed code development environment using multiple repositories was known in the art of software development and management, at the time applicant's invention was made, to support programming environment where multiple repositories can "reside on different servers (page 13, Multiple repositories)." It would have been obvious for one having ordinary skill in the art of to modify Steinman's disclosed system to incorporate the teachings of CVS. The modification would be obvious because one having ordinary skill in the art

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would be motivated to have multiple repositories that can reside on different servers so that “two development groups that work on separate projects without sharing any code can use separate repositories.

Steinman further discloses:

-identifying projects for a software development cycle (pag.2 paragraphs 2-3 “big projects in Smalltalk” page. 10 under Who Can Benefit...Smalltalk projects”); initiating concurrent software code development as functional development packages in at least two software code repositories (pg. 2 under Needs “Code Sharing and concurrency control”; pg. 9 paragraph 1 “there will be concurrent development;” pg. 4 under Hierarchy of Software Components “software components”);

Steinman does not explicitly disclose “without requiring software code check-out in any of the at least two software code repositories. CVS teaches such concurrent code development environment was known in the art of software development and management, at the time applicant's invention was made, to allow developers to concurrently work on the same code or module without waiting for the code or module to be check-in (CVS, “CVS solves this problem by insulating the different developers from each other. Every developer works in his own directory, and CVS merges the work when each developer is done,” pages 3-4). It would have been obvious for one having ordinary skill in the art of to modify Steinman's disclosed system to incorporate the teachings of CVS. The modification would be obvious because one having ordinary skill in the art would be motivated to allow a concurrent code development.

Steinman further discloses:

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- approving the functional development packages within each of the software code repositories (pg 6 paragraph 4, "developer...can release it to its containing component," page 7 paragraph 1, "developer ...alone can version"); identifying omissions or conflicts between the approved functional development packages in the at least two software code repositories (page 2, under Needs "Integration...detecting conflicts"); resolving the omissions or conflicts between the functional development packages in the at least two software code repositories (pg. 2 under Needs "Integration...detecting conflicts and managing dependencies;" pg 11 paragraph 3, "merging and differencing capability"); and releasing the functional development packages (pg 7 paragraph 1, "owner...release the class," pg 4 under Hierarchy of Software Components, "components are ...classes").

Per claim 2:

The rejection of claim 1 is incorporated, further Steinman discloses approving projects for the software development cycle (pg 6 paragraph 4, "developer...can release it to its containing component," page 7 paragraph 1, "developer ...alone can version").

Per claim 3:

The rejection of claim 1 is incorporated, further Steinman discloses submitting the functional development packages for system testing (pg. 5 paragraph 3, "tested versions").

Per claim 4:

The rejection of claim 1 is incorporated, further Steinman discloses regression testing the functional development packages (pg. 2 under Configuration Management

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“regression testing;” pg. 6).

Per claim 5:

The rejection of claim 1 is incorporated, further Steinman discloses submitting the functional development package for manager approval within the respective software code repository (pg 6 paragraph 4, “developer...can release it to its containing component,” page 6 paragraph 2, “developer ...alone can version”).

Per claim 6:

The rejection of claim 1 is incorporated, further Steinman discloses automatically submitting the functional development packages for code owner approval (pg 6 paragraph 4, “developer...can release it to its containing component,” page 6 paragraph 2, “developer ...alone can version”).

Per claim 7:

The rejection of claim 1 is incorporated, further Steinman discloses applying the functional development packages to a development map within each of the software code repositories (pg 6 paragraph 4, “developer...can release it to its containing component,” page 6 paragraph 2, “developer ...alone can version”).

Per claim 8:

The rejection of claim 1 is incorporated, further Steinman discloses testing the released functional development packages (pg. 2 under Configuration Management “regression testing;” pg. 6).

Per claim 9, it is the computer executable software code version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

Per claim 10, it is the computer-readable medium version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

Per claim 11, it is the programmed computer version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

Per claim 12:

Steinman discloses the management of SMALLTALK software code development on pg. 4 under Envy Concept. Steinman further discloses that the new release of Envy/Developer provides multi-repository support in the Postscript of the disclosure on page 13 ("A new version is available soon, R3.0...multi-repository support...multi-team programming," page 13). Although Steinman does not explicitly disclose the actual multi repository environment in the disclosure, CVS teaches such distributed code development environment using multiple repositories was known in the art of software development and management, at the time applicant's invention was made, to support programming environment where multiple repositories can "reside on different servers (page 13, Multiple repositories)." It would have been obvious for one having ordinary skill in the art of to modify Steinman's disclosed system to incorporate the teachings of CVS. The modification would be obvious because one having ordinary

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skill in the art would be motivated to have multiple repositories that can reside on different servers so that “two development groups that work on separate projects without sharing any code can use separate repositories.

Steinman in view of CVS further discloses:

-identifying projects for a SMALLTAL software development cycle (pag.2 paragraphs 2-3 “big projects in Smalltalk” page. 10 under Who Can Benefit...Smalltalk projects”); initiating concurrent SMALLTAL software code development with ENVY/DEVELOPER or functional development packages in at least two software code repositories, the code repositories at physically distinct locations (page 13, “multi-repository support...multi-team programming,” pg. 2 under Needs “Code Sharing and concurrency control”; pg. 9 paragraph 1 “there will be concurrent development;” pg. 4 under Hierarchy of Software Components “software components”);

Steinman does not explicitly disclose “without requiring software code check-out in any of the at least two software code repositories. CVS teaches such concurrent code development environment was known in the art of software development and management, at the time applicant's invention was made, to allow developers to concurrently work on the same code or module without waiting for the code or module to be check-in (CVS, “CVS solves this problem by insulating the different developers from each other. Every developer works in his own directory, and CVS merges the work when each developer is done,” pages 3-4). It would have been obvious for one having ordinary skill in the art of to modify Steinman's disclosed system to incorporate

the teachings of CVS. The modification would be obvious because one having ordinary skill in the art would be motivated to allow concurrent code development.

Steinman further discloses:

-submitting the functional development packages for manager approval within the respective software code repository and automatically submitting the functional development packages for code owner approval (pg 6 paragraph 4, "developer...can release it to its containing component," page 6 paragraph 2, "developer ...alone can version"); automatically identifying omissions and conflicts between the approved functional development packages in the at least two software code repositories, the code repositories at physically distinct locations (page 2, under Needs "Integration...detecting conflicts"); resolving the omissions or conflicts between the functional development packages in the at least two software code repositories, the code repositories at physically distinct locations (pg. 2 under Needs "Integration...detecting conflicts and managing dependencies;" pg 11 paragraph 3, "merging and differencing capability"); regression testing the functional development packages (pg. 2 under Configuration Management "regression testing;" pg. 6); approving the functional development packages (pg 6 paragraph 4, "developer...can release it to its containing component," page 7 paragraph 1, "developer ...alone can version"); releasing the functional development packages (pg 7 paragraph 1, "owner...release the class," pg 4 under Hierarchy of Software Components, "components are ...classes") .

Response to Arguments

9. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 571-272-3724. The examiner can normally be reached on M-F 7:30-4 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 571-272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

I. Kang
AU2193



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